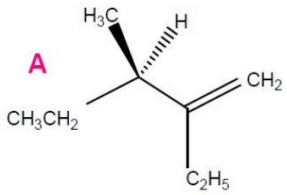
Tutorial N°5

Exercise 1 :

Hydrobromic acid or hydrogen bromide (HBr) is reacted with compound " A " to give the compound " B ".



1) Write down the formula of the compound " B " obtained in the majority.
2) Justify your answer by describing the mechanism of this reaction.

Exercise 2 :

Reacting bromoethane with potassium cyanide under reflux will produce propanenitrile and potassium bromide.

$$CH_3\text{-}CH_2\text{-}Br + KCN \longrightarrow CH_3\text{-}CH_2\text{-}CN + KBr$$

1) Knowing that the rate is : 2nd order, what type of reaction is this ?
2) Give the detailed reaction mechanism.

Exercise 3 :

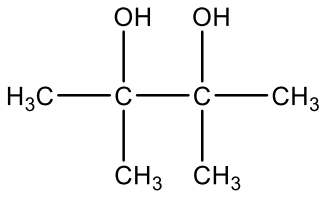
Reacting the 2-bromopropane with potassium hydroxide dissolved in warm ethanol under reflux produces propene " D " , water and potassium bromide.

$$CH_3\text{-}CHBr\text{-}CH_3 + KOH \longrightarrow D + H_2O + KBr$$

1) Rewrite the reaction equation with the detailed mechanism, explaining the reaction.
2) What is the type of the reaction ?

Exercise 4 :

The pinacol is a diol compound that undergoes a rearrangement reaction after dehydration under the action of an acid.



- Rewrite the reaction equation with the detailed mechanism, explaining the reaction.